UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
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DSSD CENSUS 2000 PROCEDURES AND OPERATIONS MEMORANDUM SERIES #L-1
(revised)

MEMORANDUM FOR   Howard Hogan
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Through: Jon R. Clark
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From: C. Robert Dimitri
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Subject: Documentation of 1990 Response and Return Rates

I.   INTRODUCTION

In response to a recent request for their availability, this memorandum provides a listing of the mail response and return rates from the 1990 Decennial Census. Documented below is the methodology for defining both the response and return rates. The attached documentation includes response and return rates at the national, state, and county levels. Also included for each state are response and return rates classified by place, Minor Civil Division (MCD), consolidated city, reservation, and Alaskan Native village.

The response and return rates were calculated for designated areas of the United States in which United States Postal Service (USPS) or Census Bureau staff delivered questionnaires prior to Census Day (April 1, 1990). Respondents completed the questionnaires and returned them to the Census Bureau through the mail.

In general, mail response rate is defined as the ratio of two numbers expressed as a percentage. The denominator is the number of addresses which were delivered a questionnaire by either the USPS or Census Bureau staff. This denominator includes housing units which were delivered a questionnaire but were actually vacant or nonexistent. The numerator is the number of these addresses for which the Census Bureau received a questionnaire back through the mail. A questionnaire received through the mail counts toward the mail response rate if it was received between the point in time that the questionnaires were delivered and the point in time that the nonresponse followup universe was determined. Therefore, response rate represents a measure of the workload completed in the areas which were delivered these questionnaires. All housing units for which the Census Bureau did not receive a response were included in nonresponse followup.

Mail return rate is also defined as the ratio of two numbers expressed as a percentage, but the housing units of the return rate universe are a subset of those from the response rate universe. The denominator is the number of addresses which were delivered a questionnaire by either the USPS or Census Bureau staff and had a final status of occupied after all followup operations were completed. Consequently, this denominator does not include housing units which were delivered a questionnaire but were actually vacant or nonexistent. Also, in contrast with the response rate, a return rate cannot be calculated until the final status of all the mailback housing units is known, which for a decennial census can be months after the time that response rates are calculable. The numerator of the return rate is the number of the addresses in the denominator for which the Census Bureau received a questionnaire back through the mail. A questionnaire received through the mail counts toward the mail return rate if it was received between the point in time that the questionnaires were delivered and the point in time that the nonresponse followup universe was determined. Therefore, return rate represents a measure of respondent cooperation in the areas which were delivered these questionnaires, since only addresses representing occupied housing units are counted toward the rate.

A previous version of this memorandum was released with response rates only. This version supersedes the earlier one since it includes both response and return rates. Additionally, it was learned that some of the geography in the appropriate file was reconfigured during the calculation of the rates by the Decennial Systems and Contracts Management Office (DSCMO) since the earlier version's release. As a result of this reconfiguration, the following reservations – none of which represented functioning government units – had response rates listed in the earlier version but do not appear in this updated version: Mohegan TDSA (state), Delaware-Muncie TDSA (state), Apache Choctaw TDSA (state), Clifton Choctaw TDSA (state), Jena Band of Choctaw TDSA (state), United Houma Nation TDSA (state), Ramapough TDSA (state), Coharie TDSA (state), Haliwa-Saponi TDSA (state), Lumbee TDSA (state), Meherrin TDSA (state), Waccamaw Siouan TDSA (state), Coquille Indian TDSA, Klamath TDSA, Chickahominy TDSA (state), and Eastern Chickahominy TDSA (state). One reservation which does represent a functioning government unit – the Seminole Trust Lands in Florida – was not included in the earlier version but does appear in this updated version due to the geography reconfiguration.

Please direct questions regarding this memorandum to Rob Dimitri at (301) 457-8026.

II.   DEFINITION OF RESPONSE RATE AND RETURN RATE FOR THIS DOCUMENT

The file that was used to generate these response and return rates is the Census Data Organization Project Operational File (CDOP-OP). Its final incarnation was created on

June 11, 1993. This hierarchical file has a geographic header record for each tabulation block, each of which is followed by the unit records for that block.

Housing units are eligible to contribute to the rates for a given geographic area (state, county, etc.) if certain block variables and certain unit variables satisfy specific criteria.

The critical block variables used in calculating both rates are the collection type of enumeration area (CCTEA) and the urban special procedure indicator (CCBUUL). Critical housing unit variables in calculating both rates are record type (CURT), source of unit (CUSRCE), the mailback check-in Julian day (CICIDY), and the surname capture indicator (CISNC). Another housing unit variable – the final census population (CIFPOP) – is also necessary to calculate the return rate. The possible values for these variables are outlined below.

<u>Variable</u>	<u>Possible Values</u>	
CCTEA	1 =	Tape Address Register (TAR)
	2 =	Prelist
	3 =	List/Enumerate (L/E)
	4 =	Prelist Pocket
	5 =	Update/Leave (U/L) - 1989 Prelist
	6 =	Remote L/E
CCBUUL	0 =	No Urban Special Procedures for Block
	1 =	Urban U/L Block
	2 =	Urban Update/Enumerate (U/E) Block
CURT	1 =	Census Group Quarters (GQ)
	2 =	Census Housing Unit (HU)
	3 =	Deleted GQ
	4 =	Deleted HU
	5 =	Killed GQ
	6 =	Killed HU
CUSRCE	1 =	Vendor, Prelisted, or from Census Control File (CCF) for L/E
	2 =	Advance Post Office Check (APOC) Add
	3 =	Precanvass or APOC Reconciliation Add
	4 =	Re-added Precanvass Delete (only occur in 33 DO's in NY, NJ, and PA)
	5 =	Yellow Card Add
	6 =	Special Place Prelist Add

	7 =	Precensus Local Review Add
	8 =	Casing, U/L Add
	9 =	Nonresponse Followup (NRFU) Add
	10 =	Field Followup Add
	11 =	District Office Adds, Not Elsewhere Classified (NEC)
	12 =	Postcensus Local Review Add
	13 =	Search/Match Add
	14 =	Processing Office Add, Count Review Add, NEC
	15 =	Housing Unit Count Check

CICIDY	0 =	Not checked in
	1 -	
	365 =	Julian Day

CISNC	0 =	No Surname Capture
	1 =	Surname Captured (Surname May Be Blank)

CIFPOP	0 =	Vacant
	1 - 29 =	Occupied (HU or GQ)
	30+ =	Occupied (GQ)

The blocks which are eligible for the response rate universe are those that have a value of 1, 2, 4, or 5 for CCTEA and also have a value of 0 or 1 for CCBUUL. The unit variables are then used to define which housing units belong in the numerator and denominator of the response rate. The denominator consists of those housing units from the aforementioned blocks that have a value of 2, 4, or 6 for CURT and also have a value of 1, 2, 3, 4, 5, 6, 7, or 8 for CUSRCE. The numerator consists of all housing units in the denominator that satisfy either CICIDY = 1 to 365 or CISNC = 1. Note that unlike the response rate that is defined in the introduction which will be used in Census 2000, the 1990 response rate for this document counts questionnaires that were checked in on any day of the year. This concession was necessary since the exact date on which the nonresponse followup universe was determined in 1990 was unavailable.

Based on these criteria, we calculate response rate, which is rounded to the nearest whole integer, using the formula:

Response Rate = (Numerator count / Denominator count) * 100.

The blocks which are eligible for the return rate universe are those that have a value of 1, 2, 4, or 5 for CCTEA and also have a value of 0 or 1 for CCBUUL. The unit variables are then used to define which housing units belong in the numerator and denominator of

the return rate. The denominator consists of those housing units from the aforementioned blocks that have a value of 2 for CURT, a value of 1, 2, 3, 4, 5, 6, 7, or 8 for CUSRCE, and a value of 1 to 29 for CIFPOP. The numerator consists of all housing units in the denominator that satisfy either CICIDY = 1 to 365 or CISNC = 1. Note that unlike the return rate that is defined in the introduction which will be used in Census 2000, the 1990 return rate for this document counts questionnaires that were checked in on any day of the year. This concession was necessary since the exact date on which the nonresponse followup universe was determined in 1990 was unavailable.

Based on these criteria, we calculate return rate, which is rounded to the nearest whole integer, using the formula:

$$\text{Return Rate} = (\text{Numerator count} / \text{Denominator count}) * 100.$$

III.   PRESENTATION OF 1990 RESPONSE AND RETURN RATES

The response and return rates are contained in separate, accompanying attachment files.

Attachment 1, L1Total.WPD (located at K:\DSSD Memo Series\L - Mail Response) contains the national response rate, the national return rate, and response and return rates for the 50 states and the District of Columbia.

CNTYAlabama.WPD, CNTYAlaska.WPD, ...and CNTYWyoming.WPD are the 51 files containing the county response and return rates from the 50 states and the District of Columbia. These files are contained in folder K:\DSSD Memo Series\L - Mail Response\L1counties. These files are also known as Attachments 2 through 52. Some states are classified according to subdivisions analogous to counties such as boroughs or parishes. Also included for each county is an indicator of whether or not that county represents a functioning government unit. The "F" denotes a functioning government while "N" implies that the county does not represent a functioning government unit.

PlaceAlabama.WPD, PlaceAlaska.WPD, ...and PlaceWyoming.WPD are the 51 files containing the response and return rates from the 50 states and the District of Columbia for places, MCDs, consolidated cities, reservations, and Alaskan native villages. "Place" is a term that can refer to a variety of geographical classifications including cities, towns, and Census Designated Places (CDP). These files are contained in folder K:\DSSD Memo Series\L - Mail Response\L1Places. These files are also known as Attachments 53 through 103. Just as in the county listings, in addition to a response and return rate each record includes whether or not the location represents a functioning government unit.

Within each of the place attachments, the rates are organized in the following order:

- State
- Minor Civil Divisions (organized alphabetically for each county – also organized alphabetically)
- Consolidated Cities (organized alphabetically)
- Places (organized alphabetically)
- Reservations (organized alphabetically)
- Alaskan Native Villages (organized alphabetically)

Attachments

cc:
DSSD Census 2000 Procedures and Operations Memorandum Series Distribution List

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County and Place Attachment Numbers by State

State	County Rates	Place Rates	State	County Rates	Place Rates
Alabama	2	53	Montana	28	79
Alaska	3	54	Nebraska	29	80
Arizona	4	55	Nevada	30	81
Arkansas	5	56	New Hampshire	31	82
California	6	57	New Jersey	32	83
Colorado	7	58	New Mexico	33	84
Connecticut	8	59	New York	34	85
Delaware	9	60	North Carolina	35	86
District of Columbia	10	61	North Dakota	36	87
Florida	11	62	Ohio	37	88
Georgia	12	63	Oklahoma	38	89
Hawaii	13	64	Oregon	39	90
Idaho	14	65	Pennsylvania	40	91
Illinois	15	66	Rhode Island	41	92
Indiana	16	67	South Carolina	42	93
Iowa	17	68	South Dakota	43	94
Kansas	18	69	Tennessee	44	95
Kentucky	19	70	Texas	45	96
Louisiana	20	71	Utah	46	97
Maine	21	72	Vermont	47	98
Maryland	22	73	Virginia	48	99
Massachusetts	23	74	Washington	49	100
Michigan	24	75	West Virginia	50	101
Minnesota	25	76	Wisconsin	51	102
Mississippi	26	77	Wyoming	52	103
Missouri	27	78			